

Progress Report

Office of International Health Programs (EH-63), Department of Energy

Title of Project: "RADIATION RISK ASSESSMENT OF CATARACT DEVELOPMENT IN A DOSE-DEFINED COHORT OF WORKERS INVOLVED IN THE CHERNOBYL ACCIDENT"

Short report covering the fifth funding period

Principal Investigator: Yuri I Kundiev,

Contact Person and Co-investigator: Peter N. Vitte

Period covered by this report: October 1, 1999 – March 31, 2000

Address: 75, Saksagansky St.,
Kiev, 252033, Ukraine,

Tel. (38 044) 220 80 30;

Tel. (38 044) 220 75 42;

Fax. (38 044) 220 66 77;

E-mail: p-vitte@ioh.kiev.ua

I. Summary of Work

The Funding Arrangement between the Department of Energy of the United States of America and the Institute of Occupational Health, Academy of Medical Sciences of Ukraine for support of the U.S.-Ukraine Cataract Study was signed in August 1997. The duration of the entire project period extends from 10.01.97 to 12.31.01. The General Goal of this four-year investigation is to facilitate the study a 12,000-subject cohort of the Liquidator population.

II. Milestones and Deliverables Accomplished during the Reporting Period

Milestones were included in the Annual Work Proposal. All the milestones were fulfilled during the reporting period. Short summaries of the results are presented in the following sub-sections.

A.

The goals of the work outlined in this year's proposal (10.01.99 - 03.31.00) are to:

- 1) Continue the data acquisition and second round follow-up of the first 3,000 subjects with the immediate aim of starting the nested Case-control study and a long-term follow-up epidemiology screening with investigation of the dose related ocular effects.
- 2) Input the data from the epidemiological questionnaires as they are generated.
- 3) Analyze the acquired data for completeness and compliance.
- 4) Input the data from the case-control questionnaires as they are generated.
- 5) Analyze the acquired case-control data for completeness and compliance.

- 6) Continue transport of the data into the epidemiological database.
- 7) Continually monitor program progress at the 9 active sites.
- 8) Program assessment.

B.

Table 1. Summary of the cohort study during the period from October 1, 1999 to March 31, 2000.

Region	Examined subjects at the sites and in the Institute from April 1, 1999 to September 31, 1999	Examined at the sites and in the Institute from October 1, 1999 to March 31, 2000.
Kharkiv	918	331
Poltava	1098	913
Zaporizja	72	18
Donetsk	1089	270
Dnipropetrovsk	602	1045
Slavutich	-	38
Rivne	-	72
Kiev	91	317
Atomic workers	18	-
Total	3888	3004

Table 2. Summary of the initial Case-control study during the period from October 1, 1999 to March 31, 2000.

Region	Number of the filled examinations Case-control forms at the sites and in the Institute from October 1, 1999 to March 31, 2000.	Number of the subjects in each of the selected two samples (ILL/NOT ILL) in Case-control investigations
Kharkiv	6	2
Poltava	108	53
Zaporizja	16	3
Donetsk	9	4
Dnipropetrovsk	306	126
Slavutich	18	8
Rivne	2	1
Kiev	303	150
Atomic workers	7	3
Total	775	350

III. Other relevant information

The principal US investigator, B.V. Worgul, traveled to Kiev during the period 10/01/99 - 03/31/00. The purposes of the trips were to meet with the primary team, discuss logistics for accelerating procedures to allow us to get back on schedule and to plan the addition of other sites in the program.

We included in the cohort those Liquidators who were among of the potential candidates from the State Chernobyl Registry (SCR) of Ukraine with preliminary estimated doses but who failed to respond to the initial mailings. The advantages of approaching those individuals are a reduction in the biased “enrichment” of the cohort while at the same time increasing the recruitment rate.

During the reporting period, our Ophthalmologists-Investigators were brought to the Institute and the members of the project team visited the sites.

There were no obstacles or unexpected costs in our portion of the project.

The goals of the work outlined in this 6th month future proposal (04.01.00 - 09.31.00) are to:

- 1) Continue the epidemiological investigations with the data acquisition and second round follow-up of the second 3,000 subjects with the immediate aim of starting the nested Case-control study and a long-term follow-up epidemiology screening with analyses of the dose related ocular effects.
- 2) Analyze of the first 3000 subjects from the second round of cohort examinations as they relate to available doses.
- 3) Input the data from the epidemiological questionnaires as they are generated and data acquisition.
- 4) Analyze the acquired Case-control data for completeness and compliance.
- 5) Continue transport of the data into the epidemiological database.
- 6) Continually monitor program progress at the 9 active sites.
- 7) Participate list of Liquidator recruits for the re-examination.
- 8) Program assessment.

IV. Publications and Preprints

Worgul, B., Vitte, P., Junk, A., Kundiev, Y., Sergienko, N., Parkhomenko, G., Chumak, V., Ruban, A., Musiyachenko, N. and Shore, R.

“A new approach for radiation risk assessment for cataract development in a dose-defined cohort of workers involved in the Chernobyl accident - preliminary data», (In preparation)

Signatures:

Prof. Yuri I Kundiev

Dr. Peter N. Vitte